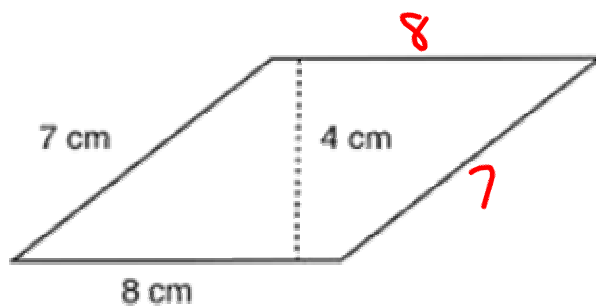


04/01/14 Agenda:

- Tessellation Project is due TODAY!!!
- Review Homework
 - Worksheet 1 - Perimeter & Area of Parallelograms
- Section 11.1 day 2 - Perimeter & Area of Triangles
- Homework
 - Worksheet 2 - Perimeter & Area of Triangles

Warm Up - Get Your Homework Out!

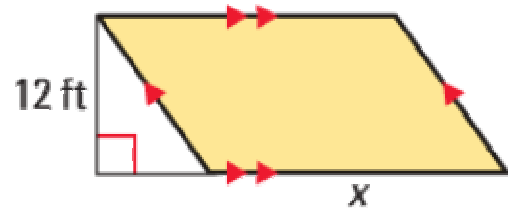
Find the perimeter and area:



$$P = 30 \text{ cm}$$
$$A = 8 \cdot 4$$
$$= 32 \text{ cm}^2$$

Find the value of x :

$$A = 180 \text{ ft}^2$$



$$x = 15 \text{ ft.}$$

Section 11.1 day 2 - Perimeter & Area of Triangles

Target 11F

April 1, 2014

Goal: Find the Area and Perimeter of a Triangle.

Review:

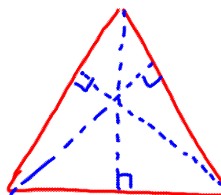
Perimeter: The total distance around an object.

Area: The total number of square units inside an object.

$$A_{\text{square}} = s^2 \text{ or } b \cdot h$$

$$A_{\text{rectangle}} = b \cdot h$$

$$A_{\text{parallelogram}} = b \cdot h$$

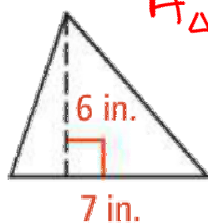


$$A_{\Delta} = \frac{1}{2}bh$$

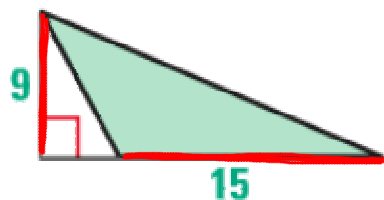
Area of a Triangle:

The area of a triangle is one half the product of a base and its corresponding height.

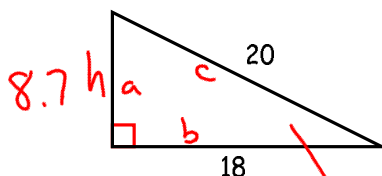
*** Remember the height is always perpendicular to the base!!!



$$\begin{aligned} A_{\Delta} &= \frac{1}{2}b \cdot h \\ &= \frac{1}{2} \cdot 7 \cdot 6 \\ &= 21 \text{ in}^2 \end{aligned}$$



$$\begin{aligned} A_{\Delta} &= \frac{1}{2}bh \\ &= \frac{1}{2} \cdot 9 \cdot 15 \\ &= 67.5 \text{ units}^2 \end{aligned}$$



$$\begin{aligned} h^2 + 18^2 &= 20^2 \\ h^2 + 324 &= 400 \\ h^2 &= 76 \\ h &\approx 8.7 \end{aligned}$$

PYTHAGOREAN THEOREM

$$a^2 + b^2 = c^2$$

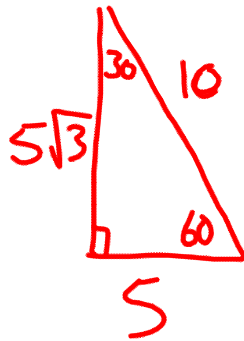
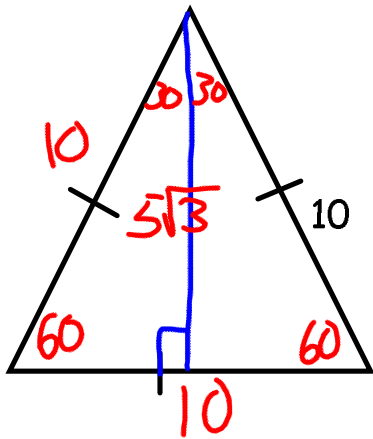
$$\begin{aligned} A_{\Delta} &= \frac{1}{2}b \cdot h \\ &= \frac{1}{2} \cdot 18 \cdot 8.7 \\ &= 78.3 \text{ units}^2 \end{aligned}$$

Section 11.1 day 2 - Perimeter & Area of Triangles

Target 11F

April 1, 2014

Find the area of an equilateral triangle with a side length of 10: $5\sqrt{3} = 8.67$

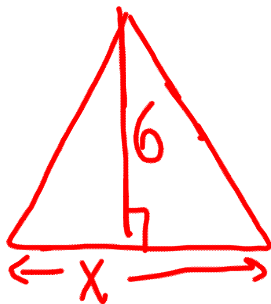


$$A_{\Delta} = \frac{1}{2}bh$$

$$= \frac{1}{2}10 \cdot 8.67$$

$$= 43.3 \text{ UNITS}^2$$

The area of a triangle is 36 in^2 . If the height is 6 in., find the base.



$$A_{\Delta} = \frac{1}{2}bh$$

$$36 \text{ in}^2 = \frac{1}{2} \cdot x \cdot 6$$

$$36 \text{ in}^2 = 3x$$

$$12 \text{ in} = x$$

Section 11.1 day 2 - Perimeter & Area of Triangles
 Target 11F

April 1, 2014

Area by addition and subtraction.

